STAND. COM. REP. NO. 318D

Honolulu, Hawaii

APR 0 2 2014

RE: S.R. No. 40

Honorable Donna Mercado Kim President of the Senate Twenty-Seventh State Legislature Regular Session of 2014 State of Hawaii

Madam:

Your Committees on Public Safety, Intergovernmental and Military Affairs and Economic Development, Government Operations and Housing, to which was referred S.R. No. 40 entitled:

"SENATE RESOLUTION COMMENDING AND SUPPORTING THE PACIFIC INTERNATIONAL SPACE CENTER FOR EXPLORATION SYSTEMS' COLLABORATIVE WORK WITH THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION AND PRIVATE INDUSTRIES IN THE AREAS OF BASALTIC CONCRETE AND ADDITIVE MANUFACTURING AND REQUESTING COLLABORATION TO EXPLORE OPPORTUNITIES FOR APPLICATIONS OF BASALTIC CONCRETE AND ADDITIVE MANUFACTURING,"

beg leave to report as follows:

The purpose and intent of this measure is to:

- (1) Commend and support the Pacific International Space Center for Exploration Systems' (PISCES) collaborative work with the National Aeronautics and Space Administration (NASA) and private industries in the areas of basaltic concrete and additive manufacturing; and
- (2) Request the State to collaborate with PISCES, county agencies, and private industries to explore opportunities for applications of basaltic concrete and additive manufacturing to reduce Hawaii's dependence on imported concrete.

Your Committees received testimony in support of this measure from the Department of Business, Economic Development, and Tourism; PISCES; and three individuals.

Your Committees find that as a result of the similarity of Hawaii's volcanic dust and lava to the regolith on the surface of the moon and Mars, PISCES is assuming a global leadership role in the development of technologies that potentially will support the manufacture of concrete and other materials that may be used to construct facilities on other planetary bodies. Research and development to support innovative technologies in basalt concrete composition and delivery is an attractive and self-sustaining alternative to continued reliance on cement and bitumen imports. PISCES has entered into research and development alliances with various private industry partners and has been invited by NASA to participate in a two-to-three year NASA research program on threedimensional additive construction using basalt regolith. has secured a leadership role for the State in the maturation of these pioneering technologies and advancing the future well-being of the State.

As affirmed by the records of votes of the members of your Committees on Public Safety, Intergovernmental and Military Affairs and Economic Development, Government Operations and Housing that are attached to this report, your Committees concur with the intent and purpose of S.R. No. 40 and recommend its adoption.

Respectfully submitted on behalf of the members of the Committees on Public Safety, Intergovernmental and Military Affairs and Economic Development, Government Operations and Housing,

DONOVAN M. DELA CRUZ, Chair

WILL ESPERO, Chair

The Senate Twenty-Seventh Legislature State of Hawai'i

Record of Votes Committee on Public Safety and Military Affairs PSM

Bill / Resolution No.:*	Committee Referral: PSM/EGH			Date: 3-31-2014				
The committee is reconsidering its previous decision on this measure.								
If so, then the previous decision was to:								
The Recommendation is:								
Pass, unamended Pass, with amendments Hold Recommit 2312 2311 2310 2313								
Members		Aye	Aye (WR)) Nay	Excused			
ESPERO, Will (C)		V.						
BAKER, Rosalyn H. (VC)								
GALUTERIA, Brickwood					V			
GREEN, M.D., Josh								
SLOM, Sam		V						
			-					
TOTAL		3	_	<i>-</i>	2			
Recommendation: Adopted Not Adopted								
Chair's or Designee's Signature:								
Distribution: Original Yellow Pink Goldenrod File with Committee Report Clerk's Office Drafting Agency Committee File Copy								

^{*}Only one measure per Record of Votes

The Senate Twenty-Seventh Legislature State of Hawai'i

Record of Votes Committee on Economic Development, Government Operations and Housing EGH

Bill / Resolution No.:*	Committee Referral: Date: 7								
8440	PSM	EGH		8/9	11/4				
The committee is reconsidering its previous decision on this measure.									
If so, then the previous decision was to:									
The Recommendation is:									
Pass, unamended Pass, with amendments Hold Recommit 2312 2311 2310 2313									
Members		Aye	Aye (WR)	Nay	Excused				
DELA CRUZ, Donovan M. (C	;)	X							
SLOM, Sam (VC)		X	-						
BAKER, Rosalyn H.					X				
CHUN OAKLAND, Suzanne		X							
ENGLISH, J. Kalani		/ `			X				
THIELEN, Laura H.		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			D ta				
WAKAI, Glenn		$\perp \lambda$							
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Recommendation: Adopted Not Adopted									
Chair's or Designee's Signature									
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